# BOOK NOTICES

### The Origin of Higher Categories in Cynips

This scientific volume is a taxonomic study of 70 new species belonging to the genus Cynips. It is the second volume published by the author on the genus, the first being published in 1930. Most of the new species are from Guatemala and Mexico. Additional information concerning certain species mentioned in the first volume has been added to the second volume. An excellent evolutionary discussion precedes the descriptions. The author has taken the higher categories which were established for the diverging ends of the evolutionary lines in the United States and united them with the existing Mexican species and thus has endeavored to throw light on the origin of higher categories in general. The discussion begins with current concepts of higher categories, followed by modern phylogenetics and the nature and origin of higher categories in Cynips. The author shows that these complexes of species or higher categories are artificial conventions useful for cataloguing biologic data, but are hardly real either in manner of origin or in their intrinsic qualities. He defines higher categories as arbitrarily limited groups of related species in a phylogenetic chain. The content of the volume indicates years of collecting in the field and intensive thought and study of material in the laboratory. Such studies are greatly needed. A bibliography and index are included.—R. H. DAVIDSON.

**The Origin of Higher Categories in Cynips,** by Alfred C. Kinsey. 334 pp., 172 figs. Bloomington, Indiana University Publications, Science Series No. 242. (Sold by Indiana University Bookstore.) 1936. $2.50.

### Photography

"New Ways in Photography" reads like a novel. The book creates in the mind of the reader an enthusiasm for photography as a hobby. A great deal of information on how to produce unusual pictures may be found in the various chapters. The titles of the chapters indicate the refreshing style of the text matter. These are: "Candid" camera capers, The good side of bad weather, After the sun goes down, "Flash, you're it," The family heirs, Hails and farewells, As the worm and bird see it, Remote control, Transparencies, Photomurals and photowallpaper, Effects with filters, Two simple three-color-processes, Photographic multiplication, The long and short of it, "Jest Foolin," Table top trickery, Potpourri, How the professional gets around it, The mending basket, Your own salon, Now it's up to you, Formulary, Index.

This book is not the usual type of reference book nor is it an orderly compendium of methods and facts, yet it contains much unusual and unique information for the amateur who takes his hobby seriously. It will make a worthwhile addition to a personal library.—A. PETERSON.

**New Ways in Photography,** by Jacob Deschin. 307 pp., illustrated. New York, McGraw-Hill Book Co., 1936. $2.75.

### A New General Zoölogy

In his new (1937) text in the field of general zoölogy Professor Lindsey offers something which is different in the way of organization and treatment. The arrangement is not based upon the usual one of taxonomic sequence but upon generalized areas of subject matter. The book is divided into six parts, as follows:

Part I, "The Foundations of Life," proceeds from a historic approach to a consideration of the general character and organization of living matter. Part II, "The Organization and Classification of Animals," is largely the usual descriptive treatment of the phyla in evolutionary order and supposed relationship. Part III, "The Maintenance of the Individual," deals with metabolic processes using examples and illustrations from all parts of the animal kingdom. The relations of organisms with their environment and the interchanges of materials are especially emphasized. Part IV, "The Maintenance of the Species," covers reproduction in general as well as embryology and heredity. Part V, "Problems of Origin," includes the theories and evidences of evolution. Part VI, "Biology and Human Life," gives special attention to the origin of man, the development of his cultures and the consideration of his social problems in the light of biology. This treatment is unusual and much to be commended.

Each of these subject groupings is treated in a comprehensive scholarly fashion sufficient to satisfy the requirements of an exacting general course. The text is quite readable even though a little heavy with technical terminology. The numerous illustrations are unusually good and appropriate. In some instances the author arouses curiosity by general statements without satisfying the curiosity by concrete examples. This may not be a fault if it stimulates the student to seek further knowledge from additional sources. There is also the prevalent tendency toward teleological explanation, but there is not enough of this to detract materially from the accuracy of the factual statements.

The book is good and deserves consideration wherever a course in general college zoölogy is offered. There is a fairly extensive glossary, a good index and a list of one hundred reference books with names of publishers and dates and a brief comment upon the contents of each book. The volume is convenient in size, and pleasingly as well as substantially bound.—D. F. MILLER.

**The Science of Animal Life,** by Arthur Ward Lindsey. xi+656 pp. New York, Harcourt, Brace and Co., 1937. $3.75.

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### Psychology

Writing from the point of view of a self-styled "old fashioned psychologist" and consequently holding that a "study of consciousness comprises a very important part of the field of psychological study," the author has produced a text book consisting of five parts, covering twenty-two chapters. Introducing his point of view with a definition of psychology and a brief history of the field, the author launches at once, in the second part of the book, into a discussion of the "simpler conscious processes"—more correctly designated, perhaps, as the sense fields. In logical order "complex conscious processes" follow in the third part. It is interesting to note that the material embodied under the simpler and complex conscious processes absorbs approximately fifty per cent of the total content of Fernberger's book.

Part IV, assigned the general and somewhat inclusive title "Reaction," contains a heterogeneous series of chapters on the nervous system, reflex, instinct, emotion, volition, and habit. Finally, in Part V, the "integrated organism" has its moment, wherein drive and motivation, individual differences, and integrated personality receive a sketchy treatment.

The author has apparently striven for a logical order of presentation which is altogether artificial and which adds nothing to the clarity or comprehensibility of his position. For instance, it seems of questionable validity to include **thinking** under **complex conscious processes** and **habit** under **reaction.** Further, it is difficult to understand why **learning** has been ignored as a special category. Insignificant attention has been devoted to social behavior, child development, and more recent aspects of measurement. Topics which do receive major emphasis are not far removed from the classical laboratory. By and large, if the objective of psychology is to be that of allegedly "pure science," then likely Fernberger's

work fulfills most requirements. If, however, pragmatic emphasis is the order of the day in the development of scientific psychology, then the author's book has not moved a very great distance from the strictly conventional approach of the older school.—M. A. DUREA.

**Elementary General Psychology,** by Samuel W. Fernberger. xxii+445 pp. Baltimore, the Williams and Wilkins Co., 1936. $3.00.

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### Raising Invertebrates

For a number of years biological scientists have wished for a publication that would bring together the better known methods on how to rear various invertebrate animals. In large measure this wish has been fulfilled in the new book entitled "Culture Methods for Invertebrate Animals." The committee in charge of this publication, J. G. Needham (Chairman), P. W. Galtsoff, F. E. Lutz, P. S. Welch, and its secretary Mary E. Davis, have assembled a valuable series of original articles and compilations on collecting and rearing methods for invertebrate animals. The committee is to be congratulated on completing its job in such an effective manner.

In this book an attempt is made to include rearing information on all groups (usually families) of invertebrates, by presenting detailed information on one or more representatives in each group. Naturally the Arthropods occupy the greater portion of the book, covering over 300 pages. The aquatic species among the various groups are discussed and treated extensively and intensively. Among the insects a number of important groups and species are omitted. In some instances, however, the information presented on closely related groups will be of assistance. A more extensive presentation of detailed figures of the equipment employed in rearing would have added considerably to the value of the book.

A work of this character should stimulate investigators to make careful and detailed reports on the methods they pursue in rearing invertebrates. Undoubtedly many valuable methods have not been published and it is hoped that they will make their appearance in the near future, so they may be included in future revisions. This book will make a valuable addition to any private or public biological library.—A. PETERSON.

**Culture Methods for Invertebrate Animals,** by a committee of American Zoologists from Section F. of A. A. A. S. xxxii+590 pp., 84 figs. Ithaca, New York, Comstock Publishing Company, 1937. $4.00.

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### Biological Control

The author of the first book in the English language on biological control of insects has compiled an interesting introduction to this subject. This volume provides a general text and much valuable information for beginning students and for those desiring general information.

For advanced students and investigators in biological control the book does not fulfill the decided need for a source book of knowledge. A volume (or volumes) of this nature can only be prepared by one or more investigators who have had many years of research and practical experience and have a broad viewpoint of the entire subject. One should not expect this volume to be a thorough and comprehensive treatise for the author has had very little practical experience in biological control. Also, so far as is known, the author has not published any original research in this field.

Many investigators in the field of biological control will not agree with several important definitions presented in the book. The chapters (6 and 7) on parasitic Diptera and Hymenoptera, are much too brief in scope and content to be of very great value to students or investigators. One of the unfortunate features of the book is the lack of cross references in the text portion. Most of the thoughts and ideas expressed in the various chapters have been stated by the investigators listed in the references at the end of the book. The author should have indicated the source of these ideas, especially where the same phraseology is used. A short glossary and a list of references occur at the end of the book.—A. PETERSON.

**The Biological Control of Insects,** by H. L. Sweetman. viii+454 pp. Ithaca, the Comstock Publishing Co., 1936. $3.75.